

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 W. JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604-3590

Reply to the Attention Of: SR-6J

August 29, 2016

Mr. Todd Konechne  
The Dow Chemical Company  
1111 Washington Street  
Midland, MI 48640

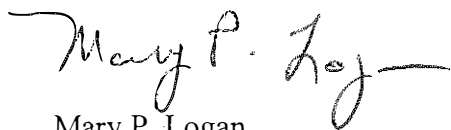
RE: Tittabawassee River Segments 4 & 5 Response Proposal  
Tittabawassee River, Saginaw River & Bay Site, Michigan  
EPA Document #EPA2016.012

Dear Mr. Konechne:

The United States Environmental Protection Agency (EPA), in consultation with the Michigan Department of Environmental Quality (MDEQ) (jointly, the Agencies) has reviewed the revised Segments 4 & 5 Response Proposal for the Tittabawassee River, Saginaw River & Bay site, dated May 31, 2016, and associated responses from The Dow Chemical Company (Dow) to Agency comments on the draft. The Agencies commented on the draft Response Proposal in a letter dated March 17, 2016. Dow submitted the revised Response Proposal pursuant to requirements of the January 2010 Administrative Settlement Agreement and Order on Consent (2010 AOC), and Section VI, Task 8 of the Statement of Work (SOW).

The Segments 4 & 5 Response Proposal was reviewed in accordance with Section X and XI of the 2010 AOC. In accordance with paragraph 37 of the 2010 AOC, EPA is approving, with conditions and comments, the Segments 4 & 5 Response Proposal for purposes of making it available for public comment, as required by the National Contingency Plan. The conditions and comments are attached. Please note, in some cases Dow's response to the Agencies' comments on the draft document is not considered complete, but should not affect response decision-making for Segments 4 & 5. The Agencies would like to discuss how best to address these comments in future submittals. Please contact me at (312) 886-4699 if you have any questions.

Sincerely,



Mary P. Logan  
Remedial Project Manager

Attachment

cc via email: A. Taylor – MDEQ  
L. Williams – FWS  
T. Prendiville, D. Russell, J. Cahn, C. Garypie – EPA  
J. Pistro – Dow

**EPA's Approval Conditions/Comments for the  
Tittabawassee River Segments 4 & 5 Response Proposal, Dated May 31, 2016  
Tittabawassee River, Saginaw River & Bay Site, Michigan**

1. Superfund non-time critical removal authority is being used for this Response Proposal. As such, and pursuant to the 2010 AOC, any decision made by EPA, in consultation with the MDEQ, will not constitute the final remedy for Segments 4 & 5 – a final remedy determination will be made in a later Record of Decision (ROD), after a full risk assessment has been completed. At the time of the final ROD (or earlier, if warranted) the Agencies will evaluate whether additional remedial action objectives (RAOs) and response actions may be necessary for Segments 4 & 5. The evaluations used in this document are sufficient to support the currently identified bases for action. However, future work will need to evaluate all relevant exposure pathways and receptors and ensure that risks are at acceptable levels.
2. The Agencies are supportive of moving forward with response activities for the currently identified sediment management areas (SMAs) and bank management areas (BMAs). However, additional Segments 4 & 5 SMAs and/or BMAs that require response activities, beyond those currently identified in the Response Proposal, may be identified based on further review and discussion, if warranted.
3. Section 3.9 and Figure 3-15 process – At this time the Agencies are not “approving” the BMA identification process and will continue to work with Dow to evaluate approaches to prioritize the Tittabawassee River banks. As we have discussed and commented on previous RPs, the Agencies consider this to be an adaptive management approach that will continue to be refined in order to meet the shared goal of addressing the worst TEQ contributing banks first. The current stability and TEQ criteria identifying prioritized banks may need to be refined over time, depending on the success at meeting RAOs.
4. SCOIs – On December 18, 2015, Dow submitted the “Sediment and Bank Soil SCOI Screening for Segments 4 through 7, Tittabawassee River.” The Agencies have not completed our review of the SCOI screening, but have commented previously on the SCOI evaluations done in upstream segments. The Agencies are not “approving” the conclusions about SCOIs found in Section 3.7. Comments on the SCOI screening will be sent separately. SCOIs must be fully addressed in the Task 10 residual risk assessment, may result in additional Segments 4 & 5 analysis/work and/or post-construction monitoring.
5. Benthic Community – Section 3.5.1 contains a brief discussion of Segments 1 and 2 benthic community conditions. The Agencies are not “approving” this analysis. There is some uncertainty about how representative the sampling locations were and, as noted, no sample locations were included in Segments 4 or 5. Other biological receptors (e.g. fish, birds, reptiles, amphibians) will need to be considered for the ecological risk assessment.
6. Conceptual Site Model (CSM)
  - a. The CSM does not show a pathway for floodplain soils back to river. As noted in previous comments on earlier RPs, the Agencies have some ongoing questions about the

conclusions regarding the potential significance for erosion of floodplain soils (and associated TEQ) back into the river. As additional information becomes available, the CSM may have to be re-evaluated.

- b. Text indicates that PCBs are not site-related. The Agencies are not necessarily in agreement with this, given that DEQ and Dow sampling of DNAPL in 2011 and 2012 from several of the Segment 1 SMAs has shown the presence of coplanar PCBs.
7. Bases for Action – The evaluations used in this document are sufficient to support the currently identified bases for action. However, future work including, but not limited to Task 10 of the 2010 AOC and SOW, will need to evaluate additional relevant exposure pathways and receptors. Additional work to address these other exposure routes, beyond the work that is currently intended to address the potential contribution of TEQ from SMAs and BMAs to in-channel sediments, may be necessary to control these additional exposure pathways in Segments 4 & 5.
8. Segments 4 & 5 Remedial Action Objectives – The actions in this Segment 4 & 5 RP are focused on secondary source control. Ultimately the goals for Segments 4 & 5 (perhaps in concert with other areas of the river) must link to acceptable risk over an acceptable estimated timeframe. As needed, the measurable metrics should be refined in an iterative fashion after the response actions are selected and implemented. The design documents and the post-response monitoring plan should re-evaluate and refine the current proposed measurable metrics, as appropriate.
9. The Segments 4 & 5 Response Proposal contains general information and assumptions supporting development of the alternatives. Additional refinement will be needed during response design, depending on the final selected response option, including, but are not limited to: SMA and BMA footprints; details about bank and sediment monitoring; Threatened and endangered species; and Construction and Post-Construction Sampling.